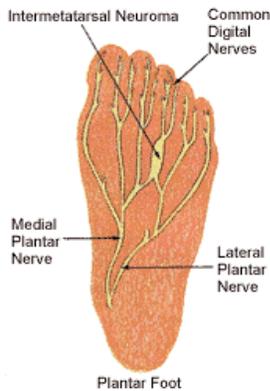


## Intermetatarsal Neuromas (Morton's Neuroma)

**What is an Intermetatarsal Neuroma?** An intermetatarsal neuroma (IMN) is any irritative process of the common digital nerve branch that supplies the plantar (bottom) of adjacent toes. It most frequently involves the nerve that supplies sensation to adjacent sides of the third and fourth toes, but can also affect other toes of the foot. A neuroma is not cancerous and is not a true tumor but a reactive, degenerative process such as a scar. Therefore, a neuroma is a benign enlargement of the nerve.



**Symptoms** Besides pain, you may also experience numbness and burning of your foot. Symptoms are aggravated by walking in shoes and relieved by removing shoes, resting and massaging the foot. Pain that occurs at rest may suggest that the neuroma is worsening.

**Causes** Intermetatarsal neuroma occurs in all adult age groups and is most prevalent among females. Although the exact etiology of IMN is unclear, several factors contribute to its occurrence. High-heeled shoes, trauma, inflammatory conditions such as arthritis, and repetitive trauma from stresses incurred in occupational and recreational activities are several of these factors. Any condition that causes constriction or irritation of the nerve can lead to the development of an intermetatarsal neuroma.

**Diagnosis** Diagnosis is made by a podiatric surgeon and is based on a thorough history of symptoms, physical examination and diagnostic procedures. Classic symptoms include pain with walking. This pain may manifest itself as burning, shooting, stabbing or radiating. Relief of pain by removing the shoes and massaging the area is another typical symptom. A thorough physical examination of the lower extremity is performed. Special attention is directed to the sensory portion of the neurological exam. The patient's description of symptoms provided can often be reproduced upon physical examination. A painful, movable mass perceptible to touch that replicates the pain is a strong sign of a neuroma.

**Treatment** The goal of treatment is to reduce or eliminate symptoms, so that you can maintain your normal lifestyle. Although some patients may not receive complete relief, it is expected that the vast majority will gain significant improvement from therapy. Treatment may be surgical or nonsurgical. Nonsurgical treatment is often attempted before surgical intervention. Your podiatric surgeon will decide the appropriate method of therapy for you. Conservative treatment for an intermetatarsal neuroma usually includes modifying shoes, orthoses or arch supports. These conservative therapies may provide complete, partial or no relief of symptoms. Another treatment option is chemical neurolysis of the neuroma. This is less invasive than surgery but can be equally effective. The decision to surgically intervene is based on your symptoms, the judgment of your podiatric surgeon and your preference. A neurectomy or surgical removal of a neuroma is performed when conservative treatment proves ineffective.